

Title (en)

Power saving and energy storage device for electric fan

Title (de)

Energieeinsparung und Energiespeichervorrichtung für elektrischen Lüfter

Title (fr)

Dispositif d'économie d'énergie et de stockage d'énergie pour ventilateur électrique

Publication

EP 2876304 A3 20150603 (EN)

Application

EP 14175291 A 20140701

Priority

TW 102142991 A 20131126

Abstract (en)

[origin: EP2876304A2] A power saving and energy storage device for an electric fan comprises an electric fan having a DC motor; at least one power generator module; and at least one electric storage unit. A shaft penetrates the DC motor, is connected with blades at one end and has an installation member at another end. The DC motor drives the shaft to rotate the blades. The power generator module is arranged in the installation member and includes a three-phase electric generation coil penetrated by the installation member and attached to the sidewall of the DC motor and a magnet ring arranged in the shaft and surrounds the three-phase electric generation coil. The rotating shaft drives the magnet ring to induce an alternating electromotive force in the three-phase electric generation coil. The electric storage unit receives and stores the alternating electromotive force. Thereby is recycled mechanical energy of the electric fan.

IPC 8 full level

F04D 19/00 (2006.01); **F03D 1/00** (2006.01); **F04D 25/06** (2006.01)

CPC (source: CN EP)

F04D 19/002 (2013.01 - CN EP); **F04D 25/0606** (2013.01 - CN EP); **F04D 25/0673** (2013.01 - CN EP)

Citation (search report)

- [A] US 2013093379 A1 20130418 - LIN YU-SHENG [TW]
- [A] US 2007109787 A1 20070517 - WU CHIN-PING [CN]
- [A] WO 0035701 A1 20000622 - BITRON SPA [IT], et al

Cited by

CN105065300A; CN106545506A; CN105065301A; CN105864068A

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2876304 A2 20150527; **EP 2876304 A3 20150603**; CN 104675721 A 20150603; JP 2015102091 A 20150604; JP 5866414 B2 20160217; TW 201520432 A 20150601

DOCDB simple family (application)

EP 14175291 A 20140701; CN 201410299521 A 20140626; JP 2014134049 A 20140630; TW 102142991 A 20131126